PATENT SPECIFICATION

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Complete Left: Sept. 25, 1923.

Complete Accepted: April 1, 1924.

PROVISIONAL SPECIFICATION.

Improvements in or relating to Rocking Chairs.

I, HERMANN SCHÖPS, of 1, Unstrutstrasse, Berlin-Neukölln, Germany, Upholsterer, a German citizen, do hereby declare the nature of this invention to be as follows:—

This invention relates to a rocking-chair, the seat of which is carried by a support on which it is made to swing freely, and to which a back-and-forward motion can easily be imparted, by means of a system of levers connected with the foot-rest. A person seated on the chair can produce without exertion a back-and-forward swinging motion of the rocking chair, merely by moving the feet. To steady the chair, for instance, when the occupant wishes to leave it, the body is bent forward and the legs drawn in simultaneously.

With a view to adapting the chair to its use, without any difficulties, by adults of various statures, the point of support of the seat of the chair on its base is made variable by means of a gear of simple type. The occupant of the chair is thus provided with means for adjusting the chair himself in a position convenient to his own stature, simply by rotating a handle. If the gear is suitably adjustable, the slightest alteration in the position of the lower segment produces a variation in the position of the seat frame and in the tilting of the chair, which sets up a pleasant rocking motion. The support is mounted in a suitable manner on rollers, on which it can be displaced in such a way that the chair can be tilted right back, whatever may be the position of the support. In this position it can be used as a lounging-chair; the chair can also be placed upright and is then used as an ordinary chair.

When the chair is tilted right back to its full extent, the lower segments of the ball joint are stretched out and are carried by the foot-supports, the legs of the occupant being thus also placed in a position of rest. When the occupant in this recumbent position of rest wishes to get quickly out of the chair, it is not necessary to bring the supporting frame back into its former position by working the handle, in view of the fact that the chair is in a position of equilibrium through the lever arrangement connected with the foot-rest. It will then be sufficient for the occupant to pull up the lower segment, whereby the pressure exerted by the foot-rest and the levers connected therewith is increased, and the chair is placed in a vertical seating position. When the occupant now raises the upper part of his body simultaneously he can step off the chair, whilst the latter remains in the raised position on account of the fact that the weight of the front portions of the frame is heavier than the weight of the rear portions of the said frame.

The annexed drawings show a mode of carrying the invention into effect:

Fig. 1 is a side-view of a chair of simple type without shifting gear, tilted backwards.

Fig. 2 is a side-view of the chair frame fitted with shifting gear, in a vertical sitting position;

Fig. 3 is a similar view, showing a different adjustment,

Fig. 4 is a section on the line IV—IV of the chair as shown by Fig. 3, and

Figs. 5 and 6 are a side and front view of the device for altering the position of the seat.

The rocking chair frame *a* is supported by the carrying rollers *b* of the fixed frame *c*, fitted on each side of the chair. The foot-rest *f* meshes with the teeth *g* of the bent lever d^2; its position of gearing with the said teeth can be adjusted according to the stature of the person who occupies the chair.

The bent lever *d*, d^2 rotates about a fulcrum d^1 which is mounted on the chair frame *c*. The said bent lever is also connected with a guide *e* which rotates round the axle e^1. When the occupant of the rocking chair imparts a back-and-forward motion to the articu-

lated lever d, e, by means of the foot-rest f, the frame a is brought in the position shown by Fig. 1. However easy the backward tilting may be, a return swinging motion is made quite as easy by exerting, through the lower segment, a pressure on the lever d^2.

With a view to adjusting the position of the supporting parts to the stature of the occupant of the chair, it is necessary to displace the seat-frame on the under-frame. With this purpose in view, the seat-frame is fitted with a gear-wheel k and a handle l which when rotated, displace the toothed sector h and rotate the axle h^1. A rod i is connected with the arm of the toothed sector h, and this rod i connected by means of an articulation with a fixed point on the frame c. Consequently, when the gear-wheel k is rotated, the position of the seat-frame a on the carrying rollers b is displaced and the amplitude of the rocking motion is adjusted in accordance with the stature of the occupant of the chair. As shown by Fig. 4, the motion of the toothed sector is transmitted by the toothed sector h to the other side of the chair, where a corresponding lever i works in the same manner. It is, therefore, only necessary to work one handle, in order to shift simultaneously the position of the two sides of the chair on their supports.

Figs. 5 and 6 show the handle drive. The handle l cannot be rotated straight away, in view of the fact that a pin l^1 catches with one of the holes of the fixed bearing p. When it is required to effect an adjustment of the position, the handle l must first of all be turned against the pressure of the spring l^2, round the journal l^3 in such a way that the pin l^1 is released from the corresponding locking slot. The handle is then rotated until the point of equilibrium of the chair-frame a is reached, when the stud l^1 is again allowed to catch with the nearest opening m.

Dated this 1st day of January, 1923.

DICKER & POLLAK,
Chartered Patent Agents,
20 to 23, Holborn, London, E.C. 1,
Agents for the Applicant.

COMPLETE SPECIFICATION.

Improvements in or relating to Rocking Chairs.

I, HERMANN SCHÖRS, a German citizen, of 1, Untruptstrasse, Berlin-Neukölln, Germany, Upholsterer, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to a rocking-chair, the seat of which is carried by a stationary under frame on which it is made to swing freely, and to which a back-and-forward motion can easily be imparted, by means of a system of levers connected with the foot-rest. The invention consists in a rocking chair provided with a bent lever carrying a foot-rest and connected by means of an articulation with the seat and through a guide to the under-frame in such a way that the chair is tilted backwards when the foot-rest is raised by the movement of the feet of the occupant. A person seated on the chair can produce without exertion a back-and-forward swing motion of the rocking chair, merely by moving the feet. To steady the chair, for instance, when the occupant wishes to leave it, the body is bent forward and the legs drawn in simultaneously.

With a view to adapting the chair to its use, without any difficulties, by adults of various statures, the point of support of the seat of the chair on its under frame may be variable by means of a gear of simple type. The occupant of the chair is thus provided with means for adjusting the chair himself to a position convenient to his own stature, simply by rotating a handle. If the gear is suitably adjustable, the slightest alteration in the position of the foot rest produces a variation in the position of the seat frame and in the tilting of the chair, which sets up a pleasant rocking motion. The point of support of the seat is mounted in a suitable manner on rollers, on which it can be displaced in such a way that the chair can be tilted right back, whatever may be the position of the support. In this position it can be used as a lounging-chair; the chair can also be placed upright and is then used as an ordinary chair.

When the chair is tilted right back to its full extent the foot-supports are stretched out and the legs of the occupant are thus placed in a position of rest. When the occupant in this recumbent position of rest wishes to get quickly out of the chair, it is not necessary to bring the supporting frame back into its former position by working the handle, in view of the fact that the chair is in a position of equilibrium through the lever arrangement connected with the foot-rest. It will then be sufficient for

the occupant to exert an increased pressure by the foot-rest and the levers connected therewith, and the chair is placed in a vertical seating position. When the occupant now raises the upper part of his body simultaneously he can step off the chair, whilst the latter remains in the raised position on account of the fact that the weight of the front portions of the frame is greater than the weight of the rear portions of the said frame.

The drawings filed with the provisional specification show by way of example a mode of carrying the invention into effect:

Fig. 1 is a side view of a chair of simple type without adjusting gear, tilted backwards.

Fig. 2 is a side-view of the chair frame fitted with adjusting gear, in a vertical sitting position;

Fig. 3 is a similar view, showing a different adjustment,

Fig. 4 is a section on the line IV—IV of the chair as shown by Fig. 3, and

Figs. 5 and 6 are a side and front view of the device for altering the position of the seat.

The rocking chair frame a is supported by the carrying rollers b of the stationary under frame c, fitted on each side of the chair. The foot rest f meshes with the teeth g of the bent lever d, d^2; its position of gearing with the said teeth can be adjusted according to the stature of the person who occupies the chair.

The bent lever d, d^2 rotates about a fulcrum d^1 on the chair frame a and is connected with a guide e which rotates round the axle e^1. When the occupant of the rocking chair imparts a back-and-forward motion to the articulated lever d, d^2, by means of the foot-rest f, the frame a is brought in the position shown by Fig. 1. However easy the backward tilting may be, a return swinging motion is made quite as easy by exerting, by means of the foot rest a pressure on the arm d^2 of the lever d d^2.

With a view to adjusting the position of the supporting parts to the stature of the occupant of the chair, it is necessary to displace the seat-frame a on the under-frame c. With this purpose in view, the seat-frame is fitted with a pinion k and a handle l which when rotated, displace the toothed sector h and rotate the axle h^1 in the bearings h^2 on the seat a, (Fig. 4). A rod i is connected with the arm of the toothed sector h, and this rod i is connected by means of an articulation with a fixed point on the frame c. Consequently, when the pinion k is rotated, the position of the seat-frame a on the carrying rollers b is displaced and the amplitude of the rocking motion may be adjusted. As shown by Fig. 4 the motion of the toothed sector, is transmitted from the toothed sector h by means of the axle h^1 to the other side of the chair, where a corresponding lever i works in the same manner. It is, therefore, only necessary to work one handle, in order to shift simultaneously the position of the two sides of the chair on their supports.

Figs. 5 and 6 show the handle drive. The handle l cannot be rotated straight away, in view of the fact that a pin l^1 catches with one of the locking slots of the fixed bearing p. When it is required to effect an adjustment of the position, the handle l must first of all be turned against the pressure of the spring l^2, round the journal l^3 in such a way that the pin l^1 is released from the corresponding locking slot. The handle is then rotated until the point of equilibrium of the chair-frame a is reached, when the pin l^1 is again allowed to catch with the nearest opening m.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A rocking chair provided with a bent lever carrying a foot-rest and connected by means of an articulation with the seat and through a guide to the under-frame in such a way that the chair is tilted backwards when the foot-rest is raised by the movement of the feet of the occupant.

2. A rocking chair as claimed in Claim 1 having the seat supported on rollers on the under-frame, on which it can be displaced, and adapted by means of a locking device, to be secured in its adjusted position on the rollers after such displacement.

3. A rocking chair, as claimed in Claim 1 or 2 in which the displacement of the seat on the rollers is effected by a gear such as a toothed sector and a pinion, the former of which is connected to the under-frame by means of an articulated rod or the like.

4. Rocking chair constructed arranged and operating substantially as described and illustrated in the annexed drawings.

Dated this 24th day of September, 1923.

DICKER & POLLAK,
Chartered Patent Agents,
20—23, Holborn, London, E.C. 1,
Agents for the Applicant.

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213,657 PROVISIONAL SPECIFICATION

SHEET 1

[This Drawing is a reproduction of the Original on a reduced scale]

Fig.1

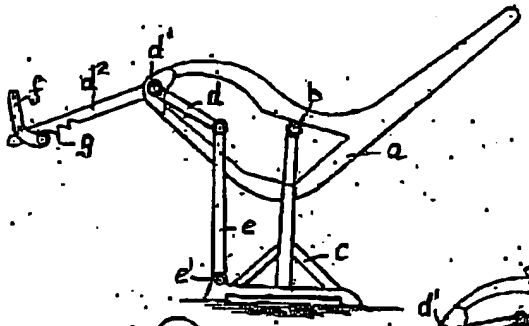


Fig.2.

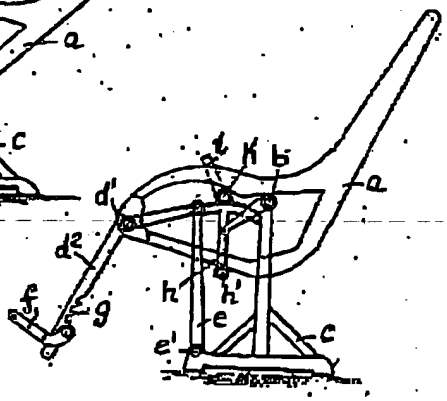


Fig.5.

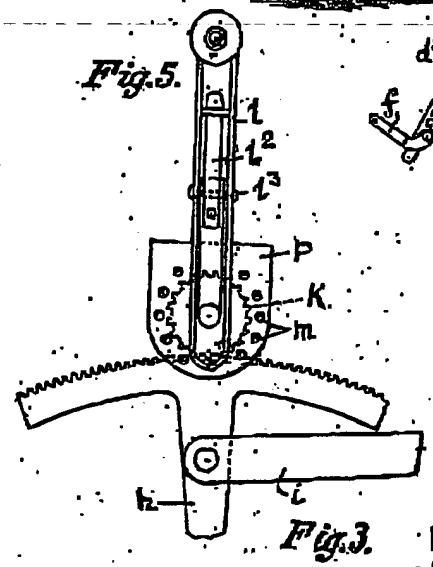


Fig.3.

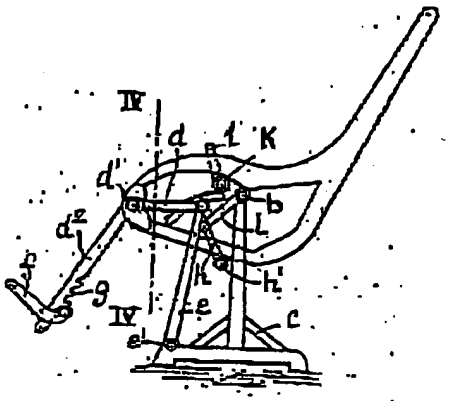
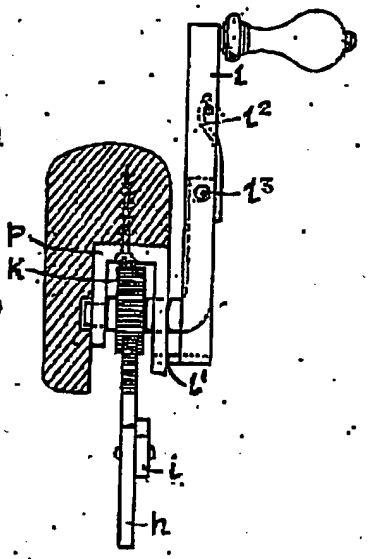


Fig.6.



Fig

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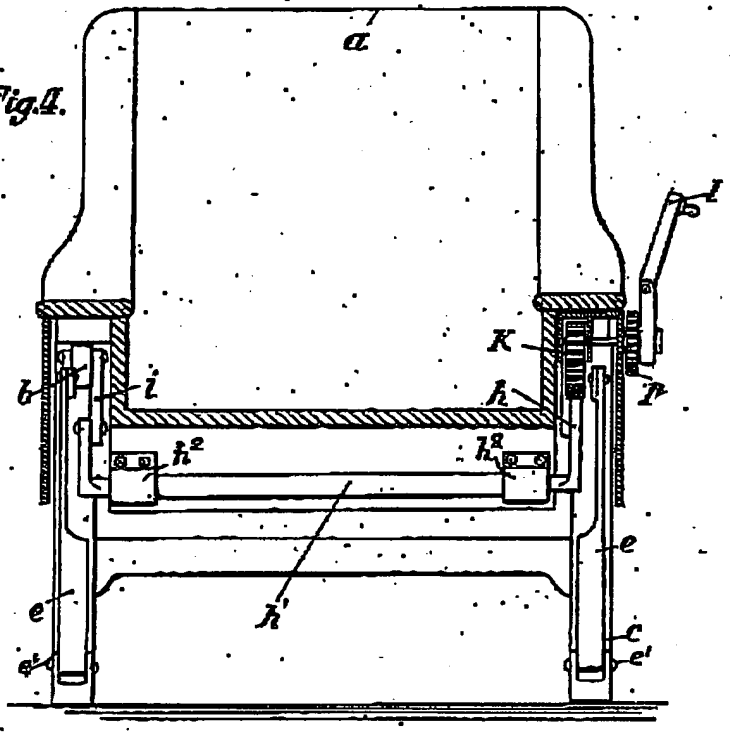
Fig. 4.



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